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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/467,551	12/10/1999	LYNN Y. LIU	AIMN-01-006	2530

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EXAMINER

NGUYEN, NGA B

ART UNIT	PAPER NUMBER
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3628

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/467,551

Applicant(s)

LIU ET AL.

Examiner

Nga B. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is the answer to the Amendment filed on April 26, 2004, which paper has been placed of record in the file.
2. Claims 43-51 have been added.
Claims 21-51 are pending in this application.

Response to Arguments/Amendment

3. Applicant's arguments with respect to claims 21-51 have been fully considered but are moot in view of new ground of rejections.
4. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freese et al. (hereinafter Freese), U.S. Patent No. 5,291,543, in view of Bittinger et al. (hereinafter Bittinger), U.S. Patent No. 5,867,661, and further in view of Griffin, U.S. Patent No. 5,893,077.

Regarding to claim 21, Freese discloses a computer implemented method for settlement of charges for cellular connection services, comprising.

receiving, from a local service provider over Internet, accounting records of user's connection service usage of the local service provider, the local service provider operated independently from a home service provider of the user, the user not having an account with the local service provider but having an account with the home service provider and connecting to the network via the local service provider (column 5, lines 25-65; figure 3 and column 8, lines 5-15, the roam clearing house 240 receives roam call detail records from the billing service provider 205 of the cellular carriers 202, 201 over the public switch network 134 (Internet is a public network); column 3, lines 47-54, in the roaming service, the customer does not have an account with foreign carrier by does have an account with the home carrier);

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collecting the accounting records for a period of time (column 5, lines 42-45, collecting the roam records on a weekly or bi-weekly basis);

generating a report of service usage for the period of time (column 5, lines 52-60, the roam clearing house generating a report service usage for weekly of bi-weekly); and

transmitting the report of service usage to the home service provider over the Internet (column 7, line 60-67, the cellular carrier file server processor 107 transfers the records to the message router 111, the message router 111 periodically places a telephone call to the billing service provider from the local cellular switch over the public switched network 134 (the Internet is a public network) for the purpose of downloading detailed call records).

Freese does not disclose the connection service is an Internet connection service. However, Bittinger discloses the user can access the Internet using laptops, notebooks, Personal Digital Assistants (PDAs) over a wireless communication system, e.g. a cellular communication system (column 2, lines 60-67). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system of Freese by adopting the teaching of Bittinger for the purpose of settlement of charges for Internet connection services via a cellular communication system. Still further, it is common practice in the art that accessing the Internet using laptops, notebooks, or Personal Digital Assistants (PDAs) over a wireless communication system, e.g. a cellular communication system, is equivalent to making a telephone call, thus the settlement of charges for Internet connection services would be

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performed the same as the settlement of charges for telephone connection services in modified Freese's system.

Moreover, Freese does not disclose filtering the accounting records to remove erroneous data. However, Griffin discloses a method and system for settling charges for Internet connection services comprises filtering the records to remove erroneous data (column 22, lines 37-51). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include this feature in the system of Freese modified by Bittinger above, for the purpose of ensuring that no incorrectly data is placed in the report of service usage.

Regarding to claims 22-25, Freese discloses generating a report of service usage for the period of time comprises: categorizing the accounting records by home service provider, by local provider, by user and aggregating the accounting records corresponding to the period of time (column 5, lines 52-56).

Regarding to claims 26-27, Freese, Bittinger, and Griffin do not disclose filtering the accounting records to remove erroneous data comprises: removing duplicate records; removing irrelevant data from the accounting records. However, removing duplicate records and irrelevant data from the accounting records is well known in the art of manipulating the accounting records. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include that feature in the system of Freese modified by Bittinger and Griffin above, for the purpose of removing duplicate

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records and irrelevant data from the accounting records in order to ensure that no incorrectly data is placed in the report of service usage.

Regarding to claims 28, 30, Freese discloses multiplying the time period the user was provided service by the local service provider by a rate corresponding to a rate negotiated by the user's home service provider; categorizing the time period the user was provided service by local service provider (column 5, lines 32-36)

Regarding to claim 29, Freese discloses categorizing the time the user was provided service by geographic location and multiplying the time in each geographic location by a rate corresponding to charges for service in each geographic location for the user's home service provider (column 5, lines 32-36; long distance charged).

Regarding to claims 31, 32, Freese discloses a central settlement server for settling charges for network connection services comprising:

a loader for receiving, from a local service provider over Internet, accounting records of a user's connection service usage of a network of the local service provider, the local service provider operated independently from a home service provider of the user, the user not having an account with the local service provider but having an account with the home service provider and connecting to the network vial the local service provider (column 5, lines 25-65; figure 3 and column 8, lines 5-15, the roam clearing house 240 receives roam call detail records from the billing service provider 205 of the cellular carriers 202, 201 over the public switch network 134 (Internet is a public network); column 3, lines 47-

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54, in the roaming service, the customer does not have an account with foreign carrier by does have an account with the home carrier);

a raw records database, coupled to the loader, for storing the raw accounting records (column 4, lines 55-68);

a roaming history database for storing the filtered accounting records (column 5, lines 52-66); and

a reporting module, coupled to the roaming history database, for generating reports from the filtered accounting records to be sent to a home service provider records (column 5, lines 52-66).

Freese does not disclose the connection service is an Internet connection service. However, Bittinger discloses the user can access the Internet using laptops, notebooks, Personal Digital Assistants (PDAs) over a wireless communication system, e.g. a cellular communication system (column 2, lines 60-67). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system of Freese by adopting the teaching of Bittinger for the purpose of settlement of charges for Internet connection services via a cellular communication system. Still further, it is common practice in the art that accessing the Internet using laptops, notebooks, or Personal Digital Assistants (PDAs) over a wireless communication system, e.g. a cellular communication system, is equivalent to making a telephone call, thus the settlement of charges for Internet connection services would be performed the same as the settlement of charges for telephone connection services in modified Freese's system.

Moreover, Freese does not teach a filter, coupled to the raw records database, to generate filtered accounting records by removing erroneous data from the raw accounting records. However, Griffin discloses a method and system for settling charges for Internet connection services comprises a filter, coupled to the raw records database, to generate filtered accounting records by removing erroneous data from the raw accounting records (column 22, lines 37-51). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include that feature in the system of Freese modified by Bittinger above, for the purpose of ensuring that no incorrectly data is placed in the report of service usage.

Regarding to claims 33, 36, Freese discloses wherein the reporting module further comprises: a rating means for adding service rate information to the accounting records (column 5, lines 32-36).

Regarding to claims 34, 37, Freese discloses the loader further comprises: a transformation means for arranging fields in the accounting records into a predetermined format (column 5, lines 52-53).

Regarding to claims 35, 38, Freese, Bittinger, and Griffin do not disclose the filter comprises: a means for removing duplicate records. However, removing duplicate records and irrelevant data from the accounting records is well known in the art of manipulating the accounting records. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include that feature in the system of Freese modified by Bittinger and Griffin above, for the purpose of removing duplicate records and irrelevant data from the

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accounting records in order to ensure that no incorrectly data is placed in the report of service usage.

Claims 39-42 are written in computer programming that parallel the limitations found in claims 21-23, 28 above, therefore are rejected by the same rationale.

7. Claims 43, 46, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freese et al (hereinafter Freese), U.S. Patent No. 5,291,543, in view of Bittinger et al. (hereinafter Bittinger).

Regarding to claim 43, Freese discloses a computer implemented method for settlement of charges for cellular phone connection services, comprising.

receiving, from a local service provider over Internet, accounting records of user's connection service usage of the local service provider, the local service provider operated independently from a home service provider of the user, the user not having an account with the local service provider but having an account with the home service provider and connecting to the network via the local service provider (column 5, lines 25-65; figure 3 and column 8, lines 5-15, the roam clearing house 240 receives roam call detail records from the billing service provider 205 of the cellular carriers 202, 201 over the public switch network 134 (Internet is a public network); column 3, lines 47-54, in the roaming service, the customer does not have an account with foreign carrier by does have an account with the home carrier);

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generating a service usage report based upon the received accounting records; and (column 5, lines 52-60, the roam clearing house generating a report service usage for weekly of bi-weekly); and

transmitting the report of service usage to the home service provider over the Internet (column 7, line 60-67, the cellular carrier file server processor 107 transfers the records to the message router 111, the message router 111 periodically places a telephone call to the billing service provider from the local cellular switch over the public switched network 134 (the Internet is a public network) for the purpose of downloading detailed call records).

Freese does not disclose the connection service is an Internet connection service. However, Bittinger discloses the user can access the Internet using laptops, notebooks, Personal Digital Assistants (PDAs) over a wireless communication system, e.g. a cellular communication system (column 2, lines 60-67). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system of Freese by adopting the teaching of Bittinger for the purpose of settlement of charges for Internet connection services via a cellular communication system. Still further, it is common practice in the art that accessing the Internet using laptops, notebooks, or Personal Digital Assistants (PDAs) over a wireless communication system, e.g. a cellular communication system, is equivalent to making a telephone call, thus the settlement of charges for Internet connection services would be performed the same as the settlement of charges for telephone connection services in modified Freese's system.

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Regarding to claim 46, Freese discloses a central settlement server for settling charges for network connection services comprising:

a loader for receiving, from a local service provider over Internet, accounting records of a user's connection service usage of a network of the local service provider, the local service provider operated independently from a home service provider of the user, the user not having an account with the local service provider but having an account with the home service provider and connecting to the network vial the local service provider (column 5, lines 25-65; figure 3 and column 8, lines 5-15, the roam clearing house 240 receives roam call detail records from the billing service provider 205 of the cellular carriers 202, 201 over the public switch network 134 (Internet is a public network); column 3, lines 47-54, in the roaming service, the customer does not have an account with foreign carrier by does have an account with the home carrier); and

a reporting module for generating service usage reports from the received accounting records and transmitting the service usage reports to the local service provider over the Internet (column 5, lines 52-66 and column 7, line 60-67, the cellular carrier file server processor 107 transfers the records to the message router 111, the message router 111 periodically places a telephone call to the billing service provider from the local cellular switch over the public switched network 134 (the Internet is a public network) for the purpose of downloading detailed call records).

Freese does not disclose the connection service is an Internet connection service. However, Bittinger discloses the user can access the Internet using

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laptops, notebooks, Personal Digital Assistants (PDAs) over a wireless communication system, e.g. a cellular communication system (column 2, lines 60-67). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system of Freese by adopting the teaching of Bittinger for the purpose of settlement of charges for Internet connection services via a cellular communication system. Still further, it is common practice in the art that accessing the Internet using laptops, notebooks, or Personal Digital Assistants (PDAs) over a wireless communication system, e.g. a cellular communication system, is equivalent to making a telephone call, thus the settlement of charges for Internet connection services would be performed the same as the settlement of charges for telephone connection services in modified Freese's system.

Claim 49 is written in computer programming that parallel the limitations found in claim 43 above, therefore are rejected by the same rationale.

8. Claims 44, 45, 47, 48, 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freese et al (hereinafter Freese), U.S. Patent No. 5,291,543, in view of Bittinger et al. (hereinafter Bittinger), and further in view of Miller et al. (hereinafter Miller), U.S. Patent No. 5,727,002.

Regarding to claims 44, 45, 47, 48, 50 and 51, Freese and Bittinger do not disclose wherein the accounting records are received from the local Internet service provider over the Internet using User Datagram Protocol (UDP), and File Transfer Protocol (FTP). However, Miller discloses transmitting data over the Internet using User Datagram Protocol (UDP), and File Transfer Protocol (FTP)

(column 1, lines 40-50). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include that feature in the system of Freese modified by Bittinger above, for the purpose of using the common protocols for communicating accounting records over the Internet, thus time consuming because transmitting accounting records over the Internet more faster than physically transmitting.

Conclusion

9. Claims 21-51 are rejected.

10. The prior arts made of record and not relied upon is considered pertinent to applicant's disclosure:

Reeder (US 5,852,812) discloses a billing system for a network.

Egendorf (US 5,794,221) discloses an Internet billing method.

Coleman et al. (US 6,006,090) disclose a system and method for providing roaming capability for mobile computers in a standard network

Tso et al. (US 6,047,327) disclose system for distributing electronic information to a targeted group of users.

Penners et al. (U.S 5,793,762) disclose system and method for providing packet data and voice services to mobile subscribers.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Nga B. Nguyen whose telephone number is (703) 306-2901. The examiner can normally be reached on Monday-Thursday from 9:00AM-6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on (703) 308-0505.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-1113.

12. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

C/o Technology Center 3600

Washington, DC 20231

Or faxed to:

(703) 872-9326 (for formal communication intended for entry),

or

(703) 308-3691 (for informal or draft communication, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, Seventh Floor (Receptionist).

Nga B. Nguyen



July 22, 2004